Planetary Gearboxes

Our range of planetary gearboxes are particularly suitable for applications requiring the precision positioning of heavy loads and for operation in challenging environments.



High End

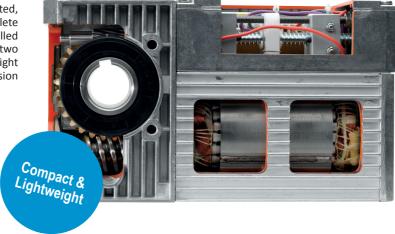
High End range are equipped with precision ground helical gearing, single-piece planetary carriers and full needle bearings. With a one-piece robust housing they improve the gear rigidity and enable the absorption of higher loads. The sun pinions are fitted with an additional bearing system in order to ensure a quieter operating behaviour. The 2-stage versions are constructed in a space-optimised design. Due to the lower torque values, the input stage is dimensionally smaller than the output stage.

High End Economy

High End Economy are equipped with ground, helical-cut precision components which ensure a low operating noise as well as very quiet operating characteristics and above-average torque absorption. a full needle bearing which was specially designed for high torques. The planetary carriers are manufactured as a cage made from solid material. This increases the quiet operating characteristics and also improves the positioning accuracy and reduces backlash.

Compact Geared Motors

Particularly suitable for applications where space is limited, Compacta series shaft-mounted gear motors are complete electromechanical drives in which the speed of the installed electrical motor is reduced to the desired value using two to four reduction stages. Compact size and light weight are achieved by using a spur and worm gear transmission combined with performance-optimised motors.



Applications

- · Conveyors Packaging, Handling
- Cranes
- · Stage, Film, Theatre
- Robots
- Radars
- Telescope Bases
- · Man Lift Vehicles
- Cherry Pickers
- Bottling/Filling/Washing Machines

- Medical /Luggage Scanners
- · Water Treatment Bridge Scrapers
- Amusement Rides
- Stacker/Reclaimer Machines
- Automation
- Material Handling
- Automotive
- Medical Technology
- Sheet Metal Working

- Agricultural Technology
- · Facade Technology
- · Pump Systems
- Pool CoversPackaging
- Wind Technology
- Emotive
- Water Treatment

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R.A. Rodriguez (UK) Ltd.
Turning Ideas Into Engineering Solutions

Drives & Actuation







Drives and Actuation

For over 50 years R A Rodriguez (UK) Ltd has been supplying quality precision components, all approved to the latest ISO9001 and AS9120 quality standards. We offer a high level of technical and commercial service to customers to reliably provide the right solution to any application, no matter how specialised it is. If you've got an unusual application, we can help develop a bespoke solution for you.











Cycloidal Gears

Gearheads

Nabtesco gearheads are completely sealed gear units, complete with grease, making them ready for installation. To reduce the design and assembly costs, we integrate the motor adapter plate and the motor shaft coupling for servo motors in the gearheads. The gearheads are based on our different component sets with a hollow or solid shaft with each of their design features bringing copious advantages.

Component Sets

Precision gear assembly kits from Nabtesco stand for extreme precision, extremely low vibrations and low mass inertia with a long service life and high-efficiency ratio, at 85%. The ingenious two-stage cycloidal design ensures the gears are unaffected by high shock loads and allow high torques. The RV-C and RV-N series component sets also feature integrated angular ball bearings, eliminating the need for the customer to provide bearings or the associated manufacturing costs for the bearing mounts.

Neco®

The Neco® series of next-generation cycloidal gears comprises of modern, state-of-the-art modular designs that are compact, economical and robust. The comprehensive corrosion protection and ability to withstand shock loads up to 5 times the rated torque guarantee reliability and durability. These lightweight, sturdy and fully-enclosed gear units provide maximum flexibility in motor connections, suiting all standard servomotors, which warrants a quick and easy installation and assembly process.

Gear Lubricants

Nabtesco gearheads are filled at the factory with the optimal lubricant and sealed, so they are ready for installation when they are delivered to our customers. The gears can therefore be installed directly in the machine or system as a plug-and-play solution. The various developments of lubricants that Nabtesco offer ensure excellent lubrication performance over a wide range of applications.



Linear Technology

With unwavering high standards and competitively priced, our range of Linear technology offers precise guidance for every motion. The range of 'off the shelf' products includes ball bushings and aluminium housings, hardened precision shafts, shaft supports, ball screws and linear guideways. We also offer our customers complete customised solutions with a high degree of technical support and flexibility.

Ball Screws



Linear Guideways



Precision Shafts



Linear Chain

Linear Chain is a popular system for push-pull applications involving long strokes, where space is at a premium and weight needs to be minimised. Its compact design allows the end user to actuate heavy loads over long distances vertically and horizontally with high positioning accuracy. The chain links have a special profile with interlocking fingers at one end which enables the chain to roll or fold-up for efficient storage in one direction and form a rigid thrust device in the other direction. Linear Chain is available in three basic sizes allowing stroke lengths in excess of 5 meters and a maximum push force of up to 35,000 N. Compact drive units for the chain and storage magazines are readily available for all chain sizes.



Case Study:

Push-pull chains take the strain out of engine assembly

The customer: A premier automotive OEM

The requirement: A compact solution for three automated workstations to lift and rotate 20 hydraulic motor variants in different sizes in readiness for assembly.



The solution: Linear Chain with special profile interlocking fingers that allows it to become a rigid thrust device for pushing a guided load.

Each station is able to perform vertical, horizontal and rotary manipulation of the customer's hydraulic motors, while the production cycle time to complete the engine stuffing, is done in a matter of minutes. Linear Chain is quick to install, easy to maintain and very cost effective by comparison with a hydraulic or electric actuator.

Linear Actuators

The "Mini" series of linear actuators use powerful co-axial motors to achieve the required stroke force, using a minimum amount of space. This makes the Mini drives particularly well suited for use where space is limited. Despite its compact and lightweight design, it is extremely durable and long-lasting. A wide range of options enables them to be individually adapted for almost any application.

